

# STUDIO LIGHT

A MAGAZINE OF INFORMATION  
FOR THE PROFESSION



PUBLISHED BY THE  
EASTMAN KODAK COMPANY  
ROCHESTER NEW YORK

APRIL 1921

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PORTRAIT FILM NEGATIVE, ARTURA PRINT

*By J. Anthony Bill  
Cincinnati, Ohio*



# STUDIO LIGHT

INCORPORATING

THE ARISTO EAGLE

THE ARTURA BULLETIN

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**A** PROGRESSIVE SCHOOL  
There are a number of things that are having a direct bearing on photography these days—a number of things that are responsible for a very decided progress that has been and is continuing to be made in all lines of photographic work.

The photography of to-day is a decided improvement over the photography of a few years ago. One can look back upon the old work, however, and find much that is commendable.

The workmen were careful. Technically, much of their work was perfect. They set standards that are still worth following, as far as workmanship is concerned.

But when we judge their work by the present standards—by the best work of the best photographers of to-day, the old work suffers by comparison. As I heard one man put it: "That was certainly fine work, in its day, but it looks 'hard boiled' compared

with the work I am producing to-day."

That is a big factor in the progress of photography to-day. The old timers are holding their own. They took up the use of artificial light, different and difficult as they found its use to be. Then came Film, which made it as easy to work by artificial light as by daylight.

And when they had learned to what extent the use of Film had broadened their possibilities of handling light, they also grasped the possibilities of home portraiture.

Everyone knows that home portraiture has had a great influence on the nature of the photographic work that is being produced to-day. It has been a good influence.

Credit must also be given to the motion picture for its influence on modern portraiture. The "movie man" has taught all of us things that have been of value in portraiture. We have profited

by the successes he has made—we have been given new ideas and new ambitions.

The photographer has cast aside those ideas that had become threadbare and is very wide awake to all of the new things. We have had a very clear demonstration of this in the interest and enthusiasm with which the Eastman School has been greeted in every city in which the School sessions have been held this year.

There has not been a single instance in which the attendance has not shown an increase over any previous School. And this increase is not due to the fact that there is any material difference in the number of photographers in a given city or its surroundings. It is due to the fact that the big fellow as well as the little one has learned that there is something of value for him in the School, so he goes to get information, new ideas—to learn and to progress.

He goes to the School because his experience has taught him it is the only place where he can find a lot of new ideas, gathered from all parts of the country and dispensed in the shortest possible time with clearness and directness. It's a Progressive School.

He goes to the School because it is a very economical way of getting information. He has two short rail trips and three days away from business. If he hap-

pens to be in business in the city in which the School is held he is just that much ahead.

Some people imagine it's harder to attend a School or a Convention in your own city than in another. If you find it so, close the studio and forget it for three days.

As an example of the interest shown in the 1921 School, we will cite New York City. Over 1400 photographers were registered and the hall could not accommodate all of those who wished to attend all of the sessions.

The same could be said of Boston and Philadelphia, where the attendance assumed the proportions of well attended conventions. There were 775 photographers registered at the Boston School and 747 at Philadelphia. These were all professional photographers of the progressive type. They were a prosperous, professional looking class of photographers too. Prosperity goes hand in hand with progress.

We can't very well tell you what is incorporated in this new 1921 School. A demonstration can't be put into words, printed on paper and read. It is something you have to see to appreciate. We can't tell you how to make negatives, light and pose a subject and secure a certain result. These things must be shown by one who knows how.

Neither can a book be written

covering the work of the School. It changes too quickly. New ideas are picked up almost daily. And as fast as new ideas are found to be practical they are incorporated in the School demonstrations and lectures.

Then again the School is influenced by the demands made upon it. One of the demonstrators is asked a question. It develops that a majority of those in attendance are interested in a solution of some certain problem. So the question is answered, if necessary, by a demonstration not on the program.

In a way, then, the School is fashioned to meet the popular demand—to teach the new things but also to give freely of its practical experience in any helpful way it can.

The School program merely outlines subjects that are covered. It can do no more. If you are a portrait photographer, take in every demonstration on the subject. To do this you must get back to school habits. Every demonstration begins on the minute. There can be no delay where so much work must be accomplished in so small a time.

If you are a commercial photographer you will find many new things to interest and help you, as the subject is handled by a man who is thoroughly familiar with this branch of photographic work.

The same is true of the

demonstrations in portraiture, in printing methods and commercial amateur finishing.

As we mentioned in the beginning, a number of factors have had a direct bearing on the progress of photography in recent years. But we do not believe any one of them has had a more direct bearing than the progressiveness of the photographer himself.

The Eastman School has played its part, but its success has only been made possible by keeping its standard high and having the support necessary to make it worth while.

It is your School—make your plans to attend. The experience of others will be your experience. It will be one of the best investments of a little time and money you have ever made.

We have been asked what charge is made for the three days course. There is no charge. Your only expense is your personal expense.

Post a "Studio Closed" notice on your door, advertise the fact that you are attending a three days course of photographic lectures, take your employees with you and take in the School.

The employee is just as welcome as the studio proprietor. He is the photographer of the future. But the better photographer he is to-day the more valuable he will be to his employer.

## GETTING THE MOST FROM SILVER WASTE

Those who have made a practice of saving silver waste for a good many years know how to make the most of the saving. But as there are many who have only recently begun the practice of this economy, it is natural that their eagerness to see some returns has led them, in some cases, to overlook the advice that has been given.

The man who does a big volume of business and has forty or fifty gallons of exhausted fixing bath each week from which he can recover the silver, can accumulate enough waste in a very short time to see some very tangible results. And while the photographer with a smaller business can get a return proportionately as great, he can not get it so often.

When we first recommended the saving of silver waste by the zinc process of precipitation, there was a big temptation to see returns from the practice of this new bit of economy, and in some cases the sludge was sent to the refiner when the silver it contained was worth twelve or fifteen dollars. The zinc that had not been used up had cost four or five dollars and the refiner's charge for his assay was five or six dollars. So the return of five or six dollars was a great disap-

ointment and the refiner was thought to have been a robber.

You can't estimate returns on silver waste accurately. By the process first recommended it was necessary to send the zinc to the refiner with the sludge. Of course there is no recovery on the zinc and if only half of it had been replaced by silver, half of the weight of dried sludge would be zinc.

In the November number of *STUDIO LIGHT* it was advised that the zinc be placed in cheesecloth bags and suspended in the solution. In this way as the zinc is replaced by silver, the silver is precipitated and the remaining zinc stays in the bags. As a result, the sludge is almost free from zinc and can be removed, dried and stored until a sufficient amount is accumulated to be worth refining. The zinc in the bags is used over and over again until exhausted.

The important point, as we have tried to make clear, is not to be in a hurry about getting returns on your saving and thereby have refining and transportation charges eat up the results of your thrift.

Barring the small difference in transportation charges, it costs just as much to refine \$15.00 worth of silver as it does to refine \$150.00 worth of silver. So hold on until you have enough to count and you are not likely to be disappointed.

## COLORING GLOSSY PRINTS A CORRECTION

In our February number we gave a method of coloring glossy commercial prints in which a substitute for phospho-tungstic acid was given for setting the colors.

We recommended that after coloring and allowing the colors to dry, the prints be placed in the solution to set the colors and ferrotyped.

We failed to state that prints should be rinsed for two minutes before placing them on the ferrotypé plates.

The solution for setting the colors is made as follows:

Sodium Tungstate	150 grains
Phosphoric Acid	
(syrup) . . .	15 minimis
Hydrochloric Acid	
(C. P.) . . .	60 minimis
Water to make	32 ounces

Our reason for recommending this substitute solution is that phospho-tungstic acid of uniformly stable quality is difficult to secure, while the desired result may always be secured with the solution above.

Fix the prints in the following bisulphite hypo bath:

Hypo . . . . .	8 ounces
Sodium bisulphite	1 ounce
Water. . . . .	32 ounces

When prints have been washed and dried, apply the colors, allow them to dry thoroughly,

immerse prints for five minutes in the solution to set the colors, rinse for two minutes to remove surplus acid and place on the ferrotypé plates.

The process is a very satisfactory one, the colors do not run, and the prints, when dry, do not show any of the blue stain that often appears when phospho-tungstic acid is used.



## CAMERA IS VALUABLE TO TELEPHONE BUSINESS

The Illinois Bell Telephone Company is one of those concerns that has found photography so essential to its business that it maintains a Photographic Bureau, which is in every sense a department of professional commercial photography.

Photographs are made to preserve records, to help keep stock, teach lessons in safety, identify employees, put a punch in advertising, aid in invention and research, and help establish valuable patent rights.

These industrial photographers have some pretty tough photographic problems to solve, and as a result, have many records of achievement to be proud of.

In speaking of the progressiveness of its Photographic Bureau, its Trade Magazine speaks with pride of its experience with Film:

"Our photographers were the first in Chicago to use flexible films exclusively. Before 1913 glass plates were used almost wholly to record the objects before the lens. When the film was introduced many photographers thought it was a fad that would prove impracticable. Now it is used nearly every place where good photographs are made. The Illinois Bell's Bureau found that better pictures were made from film. It was easier to file and would not break—and it was and is cheaper than glass plates."



## THE SILVER GRAIN

A glance at the designs in our illustration on page 9 might lead one to believe that the photographer had been doing a bit of work for a designer or manufacturer of jewelry.

On the contrary, the designs shown are simply a few of the forms taken on by silver bromide crystals in ammoniacal solutions.

The fundamental units of the sensitive material used in photography are the small grains of silver halide which, embedded in gelatine, form the emulsion.

The chemistry and crystallography of the silver halide grain is naturally of fundamental importance for all photographic theory.

The Research Laboratory of

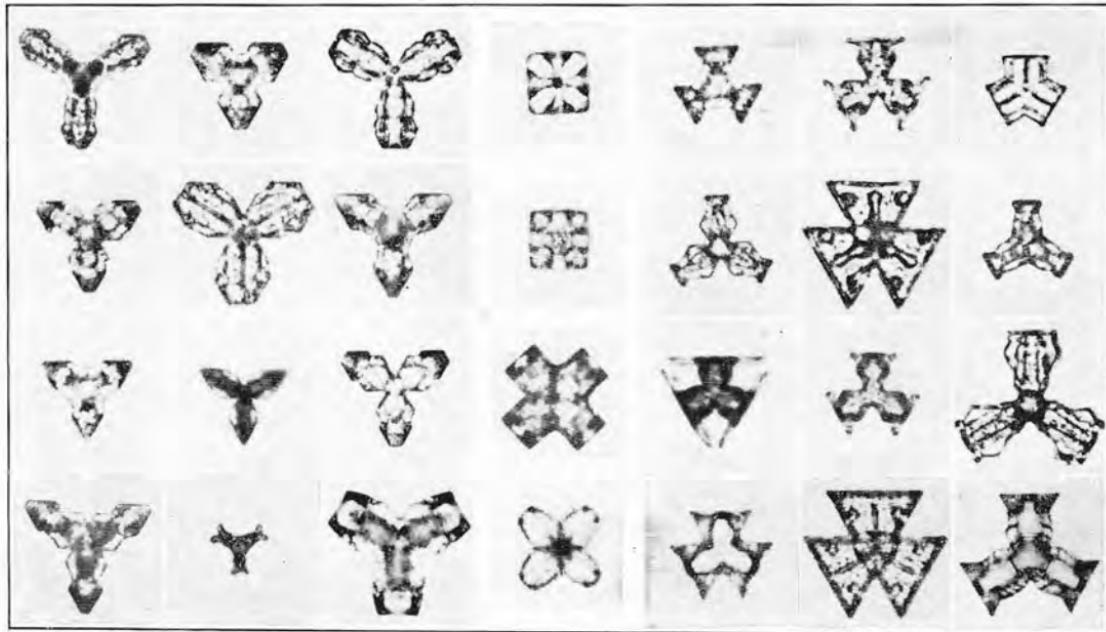
the Eastman Kodak Company, founded in 1913 to carry out research on photography and on the processes of photographic manufacture, has made the study of the silver bromide grain of photographic emulsions an important part of its work.

As a result of a very complete study of these crystals, involving photomicrographic work of a high order, it has been possible to determine that the grains of high speed emulsions are definitely crystalline, to identify their form and to determine that their several distinct shapes belong to the same crystalline class.

These and many other facts have been confirmed by this work, all of which are of very great importance to those interested in the study of photographic theory.

The scientific results obtained in the Laboratory are published in various scientific and technical journals, but the work on the theory of photography is so important and of such a general nature that a series of monographs is to be published covering the entire field of scientific photography.

Naturally these publications will only be of interest to the scientist, but such information will have a wide bearing on the future development of methods and materials for practical photographic work.



SILVER BROMIDE CRYSTALS FROM AMMONIACAL SOLUTIONS

The degree of magnification is 800 diameters.

## LIFE IN PORTRAITS

In one of the best bits of advice on the method of putting life into portraits that we have ever read, Thermit, in "The British Journal of Photography," covers the most important point in the paragraph at the right.

As his advice is decidedly worth while and the subject is one that has a very important bearing on the quality of one's work, we are reprinting the entire article.

—Editor's Note.

*"I have mentioned films; which reminds me that halation alone can destroy the live quality of a picture, and therefore a non-halative plate or a film should be used."*

I HAVE just been looking over a number of portrait photographs by different camera artists in diverse styles and qualities, and I am struck by the fact that only a few of them have a real "live" appearance. In the others, there is nothing to convince the spectator that they are actually from life and not from models or drawings. There are three in particular, which, when placed in a line, show very plainly the point I am concerned with at present. No. 1 is a bust of an obviously theatrical person. The head is certainly a round and solid object, but to know that it was photographed direct from a human being I must depend on logic. An identical result could be got from a wax model. No. 2 is different. A man's head, but certainly not solid. Looked at from some little distance it might have been taken from another photograph or from an engraving, but close inspection leaves one in doubt of either. I hap-

pen to know that it is a "direct," but it has neither the brilliance nor texture that always belong in some degree at least to human skin. Of No. 3 I know nothing except the bald statement made by the print

itself. But that statement says decisively that the subject was alive—and fully alive—when the picture was taken. It is interesting to note that this photograph does not appear otherwise to be as expensive or "classy" a production as either of the others.

Now what determines this live appearance in a portrait photograph? It is governed by the same factors that rule the production of good work in general, and so is sometimes obtained unconsciously. But it can be made a regular thing by any good worker, and need not be left to our leading camera artists as an exclusive feature.

The first thing is, naturally enough, a live appearance about the sitter, and this goes a long way, but nevertheless is not a sine qua non. A live expression on the face is more important. Every operator has—or should have—his methods of getting desired expression, but for the



PORTRAIT FILM NEGATIVE, ARTURA PRINT

*By J. Anthony Bill  
Cincinnati, Ohio*



benefit of those who need a hint I can recommend the following. Having got everything ready for the exposure we address the sitter, regardless of empty grins or bored looks, something like this. "Now, Sir, (or Madam, as the case may be), please keep precisely as you are for another moment. You look fine (or beautiful, as the case may be)." The sublime expression which invariably dawns has to be seen to be appreciated.

A sitter's complexion also affects the results we are aiming at. There is little or no white in human flesh and skin, which may show red, pink, purple, brown, cream, blue, green and other tints, and on this account colour-sensitive plates are more likely to preserve the living appearance than colour-blind plates can. At the same time excellent results are obtained on plates or films which are not—or are not supposed to be—color-sensitive. I have mentioned films; which reminds me that halation alone can destroy the live quality of a picture, and therefore a non-halative plate or a film should be used.

Exposures should be as nearly exact as possible. Neither under nor over exposure will get the best scale of gradation from the latitude of any emulsion, though the last is not so detrimental as the first.

Lighting, for general work,

should be full and plentiful without being flat. An extensive and high supply of diffused light with a small point of direct light somewhere near its centre is a rough description of a simple and effective form of lighting. Reflected light must be controlled by very deliberate inspection, and if it can be done without, so much the better.

Great depth of focus and pin-sharp definition all over are not required. Soft focus and a suggestion of fuzziness around outside edges give an impression of movement which is almost essential. At the same time, decided unsharpness is not wanted or of any use. Any lens other than one designed for portrait work should always be used at full aperture to avoid "still life" definition as much as possible.

Provided we can develop intelligently, there is only one point to consider here. If we are not using a non-halative plate or film, quick development in normal developer is calculated to give cleaner high lights than very slow action in a tank of diluted solution. The former will bring up the picture before reaching the halation, the latter will penetrate the emulsion before getting to work properly on the image. The necessary amount of development will depend on the grade of printing paper favoured. If this is soft, a fair amount of contrast must be developed into



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the negatives; for vigorous papers the development should be somewhat curtailed.

Retouching has a lot to do with the final result, particularly if ordinary plates are used, and here are three points for the retoucher who is not an expert. First, there is usually a highlight within a highlight in nature, or, in other words, highlights are not even spots or patches, but are composed of gradations. To emphasize this by inserting smaller "higherlights" in the highlights of a portrait will help considerably provided it is not overdone. Second, light playing on a person's eyeballs can give the spectator quite a decisive impression of life, and this applies also to portraits. If the whites of the eyes and the points or triangles of reflection in the pupils are inconspicuous in the negative, much can be done by the judicious addition of a little retouching lead. Third, the style of work is a factor. Retouching which prints like wire netting or a layer of dust destroys any impression of life. To use an Irishism, retouching is most useful here when it is absent, but if a negative really requires decisive retouching, the shape and direction of the strokes are important. I have always got the best results by restricting myself to short lines, straight and curved running in the (curved) directions that the grain of the skin

seems to take—horizontal on the brow, vertical at the temples, oblique on the cheeks, circular round the chin, and across the hands. I find the nose is best treated with horizontal strokes though the inclination is to work vertically.

Of printing mediums, those of the slow development type are at least as good as any, and of surfaces, matt and semi for small heads, semi or rough for large.



## CHECKING BACK ON QUALITY

Even the man who is doing good average work will do himself good to now and then put himself through school again.

The best of professional men do such things to keep out of the ruts. Your physician takes a few days or weeks off to attend a course of lectures. And while you can brush up on ideas in the same way, the only way you can brush up on actual practice is to go through a series of checking up experiments in your own studio.

Obviously, the things we are going to suggest can not be done when making sittings for your customers. But they can be done in your spare time just to keep yourself from skidding to one or the other side of what you know to be the peak of your ability to produce work that is technically and artistically good.



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And while you are putting yourself through school again you may find it will be to your advantage to also put an apprentice through the same training. You can teach him in a very short time what it might take him months to absorb. And the sooner he learns fundamentals, the sooner will he pay you dividends in good work as your assistant.

He should get his training in composition in an Art School or from the simple rules that are to be found in text books.

But lighting is a bit more difficult. The eye must be trained, not only to see an effect of light on the subject, but to also approximate what the Film or plate will record.

The ground glass is practically useless for this purpose. The image is always pleasing as it is seen on the ground glass because of its color. But it does not represent what the sensitive material will record.

It is best to forget the ground glass except as a means of focusing and placing the image in the proper space. The effect of light must be determined independently. The eye must be trained to determine the value of highlights as they will be reproduced by the negative and print.

The use of artificial light simplifies matters considerably because the light is sufficiently constant to make the duplication of a result fairly certain. You train

your eye, not so much on the strength of the light on the subject as upon the relation of the lights to the shadows.

The important thing in lighting the subject, as you know, is to maintain a harmonious balance of light and shade. It is light and shade that gives roundness to the photographic image. Put too much light in the shadows or too little light in the highlights and the result is flatness. Reverse the procedure and there is too much contrast.

Be your own schoolmaster, make your studio your school and check back against yourself just to be sure that the quality of your work is not slipping.

If some of the suggestions we make seem absurdly simple, just remember that they must be elementary. We all know them, but we sometimes slip up a bit in our judgment because they are so simple.

One of the first things to consider in lighting a subject is the value or strength of light. The strength of light diminishes very rapidly as the distance from its source is increased. If you place the subject 6 feet from the light and make a correct exposure in 2 seconds, at 12 feet the exposure must be 8 seconds.

The light decreases in inverse ratio to the square of the distance from the light. The rule refers to a point source of light but, practically, it applies suffi-



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ciently well to a greater volume of light to be used in judging exposure.

The square of 6 is 36—the square of 12 is 144, which is 4 times 36. Therefore, any exposure at 6 feet must be multiplied by 4 to secure the same result at 12 feet from the light.

Next comes the balance of light. After placing a subject at 6 feet and 12 feet from the light and noting the difference in illumination, load your holders for the first practical lesson. Make two exposures on a film to economize, as the results can be seen on a small negative as well as a large one.

First, make a strong lighting that you know will produce deep shadows. Have the light come from an angle of  $45^{\circ}$  and from a point sufficiently in advance of the subject to just touch the cheek bone on the shadow side when the subject is facing front.

Make an exposure as nearly correct as possible without using any reflector to throw light into the shadows. Get your impression of the strength of light and depth of shadows with your head in approximately the position of the lens.

Now have someone open a screen further in advance of your main source of light so that some light will fall into the shadows, or use an auxiliary light, not too strong, at a sufficient distance to slightly illuminate the shad-

ows. Note carefully the effect of this light and make another exposure.

Next, use a head screen close to the subject to reduce the highlight alone and note what effect this has in balancing the lighting. The reduction of a highlight that is too strong will make the shadows seem lighter in comparison. Make another exposure.

In each of the last two instances the change in the effect of the lighting should be very small. Don't overdo things or the comparison of the final results will not be of sufficient value.

For the fourth negative, use a reflector at a considerable distance from the subject to put a small amount of light into the shadows. Make a fifth and sixth negative moving the reflector slightly nearer each time.

The value of such experiments is in noting the effect of each change in the appearance of the lighting. You have made some of the lightings too flat and some too contrasty. You have made one that you think is just right.

When the negatives have been developed and your printer has given you the best possible print from each one, you can readily tell whether or not the lighting you thought just right produced the negative that made the best print.

If it did not, your judgment was wrong and you have learned something worth knowing.

If you have made notes at the time of making the exposures so that you can duplicate the experiments, you can make a second series of negatives very closely approximating the best results of your first experiments. The hardest thing may be to admit that you have been wrong in your judgment and to set a new standard.

So much for the balance of light. Now for the best technical quality. You have a very fair idea of exposure. But you may be wrong. Under-exposure is a common fault.

With a certain lighting you may consider 2 seconds a normal exposure. If so, make four negatives giving exposures of 1, 2, 4 and 8 seconds. Mark the time on each and develop all for the same length of time with the developer at 65°.

You may find that you are slightly under-exposing. Don't judge by your negatives. Judge by the best prints the negatives will produce. You may find your 4 seconds exposure will produce a print with more depth and roundness than you have been getting from your negatives. You may not like the looks of such negatives, but just remember that it's print quality that counts. You get business on the quality of the work you deliver.

So much for exposure. Now for the effect of time of development. You may see a greater

difference in the effect of development than in the effect of exposure. Several negatives of varying exposure, developed for the same length of time, will have the same contrast. But a variation in the time of development will make a variation in contrast.

Make about six exposures and have them as nearly identical as possible. And if you have been developing for 8 minutes, place all the negatives in a tank at the same time, but take No. 1 out in 6 minutes, No. 2 in 7 minutes, No. 3 in 8 minutes, No. 4 in 9 minutes, No. 5 in 10 minutes and No. 6 in 12 minutes.

Again, you can not judge the best result by the negatives. Don't try to. Give the six negatives to the printer and tell him to get the best prints from each negative. Mark the prints to correspond with the negatives but choose the best print before you look to see what time of development that negative received.

You may find you can improve your results by more careful development. The negative which had 8 minutes development may not produce the best print.

It takes time and patience and material, but you can improve your work if you go about the task systematically and analyze each series of experiments. It's worth the effort too, because the only way to see results is by comparison.

## THE MAN WHO MADE THE PICTURES

We often hear it remarked that the first qualification of a good portrait is that it be a good likeness. And possibly this is true. But it is so obvious a statement that it hardly deserves serious consideration.

A portrait is not a portrait if not a good likeness of the sitter. And a good likeness is not a portrait in the true sense of the word if it does not portray something of the character and personality of the sitter.

Art aims at more than resemblance—more than accurate draughtsmanship. Its aim is to delineate those distinguishing characteristics that make personalities. It subdues here and accentuates there, bringing out the best that is in the sitter and recording it in a lifelike interpretation of the sitter's most pleasing characteristics.

Much of the ability to grasp the essentials of good portraiture comes from long study and thoughtful practice. To some, ability is easily acquired while to others the result is attained only by hard work and painstaking effort.

We might say that the subject of this sketch absorbed photography. J. Anthony Bill has a record of having worked for one photographer for twenty-four years. He began his career when

a boy of fifteen and became a photographer long before he knew it.

When he did realize that he was thoroughly competent to conduct a business for himself, the Bill Studio came into existence. It is quite natural for Mr. Bill to feel that his one big mistake was in not starting to work for himself much sooner than he did, for in the seven years that his studio has been in existence he has built up a business that any man might be proud of. And along with the work of building a new business he has always found time to help the other fellow and to serve his State and the National Associations.

Mr. Bill has served as President of the Ohio Society of Photographers and has demonstrated at both State and National Conventions.

One indication of his progressiveness is the fact that he does not depend upon studio work entirely. He advertises sittings by appointment in the home or at the studio, and specializes in child portraiture and "Garden Photography"—the picturing of homes and their surroundings. His portraits of children are especially pleasing and are always full of animated expression.

It was in home portraiture that Mr. Bill first used Portrait Film. The results were so pleasing that in a short time he



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adopted Film for studio work as well, and has never regretted the change.

He has his own ideas about proof retouching and does not believe that a proof should leave too much for the customer's imagination. He goes a bit farther in proof retouching than most photographers, retouching two or three of the best negatives of each order so that the proofs show exactly what the finished print will be like.

It has been his experience that re-sittings are practically eliminated in this way and the time of retouching is very seldom wasted because retouched negatives almost always bring orders. If the order is only from one negative and a re-sitting is saved, the extra retouching is much less expensive than the time and material consumed by a re-sitting.

Our illustrations are from Artura prints, Artura being the paper which Mr. Bill uses exclusively in reproducing the beautiful quality of his Film negatives.



*For projected portraits of the  
highest quality, use:*

EASTMAN  
PORTRAIT  
BROMIDE

## HOW TO GET COMMERCIAL BUSINESS

Quite often we have requests to supply advertisements for commercial photography. Such requests may seem perfectly reasonable until you think them over carefully. Then it dawns upon you that commercial photography requires special or individual treatment in advertising.

There are a great many things that can be advertised in a general way with the best of results. Just drop the advertising in the slot as it were and take out the business. But commercial photography is not one of them.

If you are a commercial photographer and want more business than you now have, you should not expect to use newspaper advertising as a means of getting it.

If you are a portrait photographer in a town of medium size, have had considerable experience in outside work, and think you could do some commercial work to advantage, don't use newspaper advertising—at least not for commercial work. Advertise portraiture in the newspapers but make your commercial advertising personal.

When you advertise portraiture, every reader of the newspaper is a possible customer. On the other hand, it is not likely that more than one per cent. of those readers are likely to ever want commercial work.

To solicit commercial work, first of all you must have samples and they must be first-class samples. We will suppose you have done some very fine work for a manufacturer of machinery, you want to do similar work for another manufacturer in an entirely different line. Samples of the work you did for the one man will interest the other because they are different from the work he would want. They show something of another man's business—they may offer suggestions. And a man can see these things in another man's business much more readily than he can see them in his own.

If you are unable to get in personal touch with your prospective customers, write them. But never make your letter a form letter. A customer is worth the effort necessary to get him. So write him a personal letter—tell him you are doing some certain work that you think might interest him, and enclose a good print. If the suggestion fits, suggest that similar work might be useful to him and that you would be glad of the opportunity to do any photographic work of a special nature that he might have in mind for catalogues or other advertising.

A very important point in soliciting commercial photographic work is the use of the best quality of stationery. And to be consistent, the stationery or some

form of advertising matter to accompany the letter should show either actual photographs or reproductions of photographs.

You are asking a man to make use of photographs—you should make use of them yourself.

It is rather difficult to secure a fine halftone reproduction on your letter-head. It is also difficult to secure good reproductions on anything but the best printing papers and by anyone but the best printers.

Insist that you get as good halftone reproductions as it is possible to produce before you use illustrations in booklets or pamphlets. Pay the price and get the best or, have neat circulars printed, leaving spaces for small photographs which you can mount on.

We have seen this latter method used and the writer believes it is even better than using half-tones. A light weight folder is made in a size to fit your mailing envelope. It is enclosed with your personal letter soliciting business and is mailed as first-class matter, sealed.

The folder needs only a small amount of text matter of explanation, something like the following:

"No matter how graphically you can paint a word picture, an actual photograph will visualize the thing more quickly, clearly and convincingly."

A picture tells its story at a glance, and when supplemented

by suitable text, becomes the most efficient form of publicity that can be used.

These pictures are reduced from our standard photographs which are 8 x 10 inches in size."

Of course your letter must be short and to the point. We might suggest a letter but it would be only of a very general nature. You must make the letter you write fit the individual or class of individuals to whom you write it.

Mr. John Smith,  
Smith Machine Co.

Dear Sir:

Industrial photography is playing a big part in business—in manufacturing, in selling and in creating good will.

More than likely there are places in your business where photographs will save you money and other places where they will earn money for you.

We would like an opportunity to show you examples of industrial photographs we have made for others which we think may suggest ways in which you can use photographs to your own advantage.

If you are interested, call us (Main 472) and we will make an appointment to suit your convenience.

Yours very truly,

Photographs that show men at work at machines may appeal to one manufacturer. Photographs of safety appliances, safety warnings, or welfare work, may interest another. Good photographs of salesmen's samples are always of interest. A photograph of a large number of parts, prop-

erly numbered, the assembly of a complicated machine or a good photograph of the finished product are always of interest to the manufacturer and may suggest uses for photographs.

Use care in choosing samples but be sure you have them in sufficient variety, for you can never tell in what kind of work you will most likely interest a prospect.

I know of a commercial photographer who went all through his samples in an endeavor to interest a manufacturer, carefully avoiding, however, a number of pictures of cattle which were in the bottom of his sample case.

At last the manufacturer spied one of these pictures and was immediately interested. The result was the job of photographing a lot of very fine stock which was this particular man's hobby. Needless to say this was followed by a good volume of work for the factory.

Good follow-up suggestions for Industrial photography may often be had from various industrial magazines. Go over them carefully—note the illustrations and read the articles descriptive of various industries. Then pass your knowledge along to prospective customers in suggestions. There is really no limit to what you can accomplish if you have ideas and initiative and can do the work.





PORTRAIT FILM NEGATIVE, ARTURA PRINT

*By J. Anthony Bill  
Cincinnati, Ohio*



The gift that  
has personality—  
that is you.  
Your portrait  
made in  
your home.

*Home sittings by  
appointment.*



## THE SMITH STUDIO

Line cut No. 285. Price, 30 cents.

### THE ONLY CONDITION

We make but one condition in our offer of cuts for the use of photographers.

It is obvious that two photographers in the same town would not care to use the same cut, and we are therefore obliged to limit this offer to one photographer in a town. It will be a case of first come first

served. The first order from a city will be promptly filled. Succeeding orders (if any) will necessarily be turned down and the remittance, of course, will be returned. It is also obvious that we cannot, on account of the cost of the drawings, furnish any large variety of cuts at the nominal prices quoted, and therefore can offer no substitute cut. Get your order in *first*. E. K. CO.

## BULLETIN: THE EASTMAN SCHOOL OF PROFESSIONAL PHOTOGRAPHY FOR 1921



Kansas City, Mo.	April 19, 20, 21
St. Louis, Mo.	April 26, 27, 28
Detroit, Mich.	May 3, 4, 5
Cleveland, Ohio	May 10, 11, 12
Rochester, N. Y.	May 17, 18, 19

Use Eastman

## COMMERCIAL ORTHO FILM

The ideal material for commercial subjects, indoors or out. Excellent orthochromatic quality—non-halation properties superior to non-halation plates, and no more expensive than ordinary single coated plates. All the physical advantages of Film, too.

EASTMAN KODAK COMPANY,

ROCHESTER, N. Y.

*All Dealers'.*

*Safety plus  
Comfort*

## WRATTEN SAFELIGHT LAMPS



Safety in your dark-room light preserves the quality of your negatives—preserves their brilliancy by eliminating the degrading influence of fog.

Wratten Safelight Lamps transmit a soft, indirect light that is a relief to the eyes—a comfortable light that is safe for the material with which the Safelight is recommended.

Wratten Safelight Lamp, No. 1, as above . . .	\$10.00
Do., No. 2, without slide for white light . . .	7.50
Series 1 Safelight, for plates not color sensitive, 8x10	1.25
Series 2 Safelight, for Orthochromatic film or plates, 8 x 10 . . . . .	1.25
Series 3 Safelight, for Panchromatic plates, 8 x 10 .	1.25

EASTMAN KODAK COMPANY

ROCHESTER, N. Y.

*All Dealers'.*

When you order a developer,  
be specific—ask for the devel-  
oper that gets results. Say

# ELON

*We make it—we know it's right.*

Now listed at \$9.00  
per pound.

EASTMAN KODAK COMPANY,  
ROCHESTER, N. Y.

# Enlargements on EASTMAN PORTRAIT BROMIDE

sell better because they are better enlargements. Portrait Bromide is more than a quality paper. Its quality is of a special character that suits it to a special purpose—enlarging from portrait negatives. Two stocks—D White, E Buff. Two surfaces in each—Rough Matte and Rough Lustre. The price is the same as for double weight Artura Iris.

EASTMAN KODAK COMPANY,  
ROCHESTER, N. Y.

*All Dealers'.*

With a Cirkut Camera you can make negatives from five to sixteen inches in width and up to twenty feet in length.



Big profits are realized from Cirkut Group pictures of conventions, graduating classes and similar large outdoor gatherings.

Panoramic views of town and city real estate, farm, timber, mining lands and manufacturing plants are increasingly in demand.

Cirkut Cameras make some remarkably profitable negatives—such a negative as the picture above was made from.

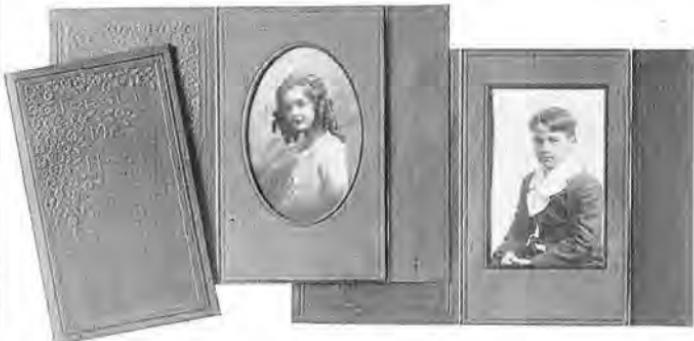
*Let us send you the "Cirkut Book."*

Eastman Kodak Company,

Folmer & Schwing Department

ROCHESTER, N. Y.

*They carry a message—*



## The Forget-Me-Not Folder

Portraits mounted in this folder convey to the persons receiving them just a little bit more than the ordinary exchange pictures.

*They carry a message.* A special show case display will attract attention. They will make a hit with the young folks.

For inslip prints  $3\frac{1}{2} \times 5$  (two out of  $5 \times 7$ ), oval and square.  
In Savoy Grey and Naples Brown colors.

PRICE, \$6.00 PER 100

*Ask your salesman to show you samples, or write us at once for them.*

Samples of both colors for five 2c. stamps.  
Sample Offer No. 4010

**TAPRELL, LOOMIS & COMPANY**

(EASTMAN KODAK COMPANY)

CHICAGO, ILLINOIS

*The Leading Card Novelty House of America.*

From the deepest shadow  
to the highest light

# ARTURA

gives perfect reproduction

EASTMAN KODAK COMPANY,  
ROCHESTER, N. Y.

*All Dealers'.*

Expose for the shadows,  
the highlights will take  
care of themselves, will  
retain their sparkle and  
brilliancy—if the nega-  
tive is made on

## Eastman Portrait Film

EASTMAN KODAK COMPANY,  
ROCHESTER, N. Y.

*All Dealers'.*